

```

1  program do_loop
2  implicit none
3  integer :: ite, ite_max
4  real :: x, delta_x
5
6  ! -----!
7  ! Request for input from user
8  ! -----!
9  print*, "Give the initial position, x"
10 read*, x
11
12 print*, "Give the increment step in x"
13 ! print*, "Give the decrement step in x"
14 read*, delta_x
15
16 print*, "For how many iteration steps?"
17 read*, ite_max
18
19 ! -----!
20 ! Setting the printout on the terminal
21 ! -----!
22 print*
23 print 100, "Ite", "Position"
24     format(1x, a, 3x, a)
25 print*, "-----"
26
27 ! -----!
28 ! Do loop to calculate x.
29 ! The number of increment depends on the value
30 !   of ite_max given by user.
31 ! -----!
32 do ite = 1, ite_max, 1
33     x = x + delta_x
34     print 101, ite, x
35         format(i3, 3x, F7.3)
36 end do
37
38 !! -----!
39 !! Do loop to calculate x (decremental).
40 !! The number of decrement is now -2.
41 !! In this case, the number of iterations
42 !!   is actually only 5 times.
43 !! -----!
44 ! do ite = 10, 0, -2
45 !     x = x - delta_x
46 !     print 101, ite, x
47 !     101 format(i3, 3x, F7.3)
48 ! end do
49
50 end
51
52

```